WHAT IS CLAIMED IS

Sub A1

1. A device comprising:

a lead frame having conductive leads and an insulative composition interposed between the leads;

a die having a lower die surface that overlies a first region of the lead frame, is connected by contacts to the lead frame, and is spaced by a gap from the first region; and

a polymer composition that forms a continuous network that forms a layer that extends at least above the lower die surface and covers regions of the lead frame surface that are outside the first region and are not occupied by any component.

2. The device of claim 1 further comprising an insulative layer that at least partially fills the gap and covers the first region.

3. The device of claim 1 in which the continuous network extends at least 50% of the distance to an upper die surface from the lower die surface.

4. The device of claim 3 in which the continuous network forms a layer covering the upper die surface.

5. The device of claim 1 in which the leads have a pitch of less than 0.10 mm.

Sub A2

6. A device comprising:

a conductive substrate;

a die having a lower die surface that opposes a first region of the substrate, is connected by contacts to the substrate, and is spaced by a gap from the first region; and

a polymer composition that forms a network on a region of the substrate that extends at least above the lower die surface, the layer imparting sufficient rigidity to the device to maintain integrity of the contacts during etching of the substrate in the absence of a supporting frame.

7. The device of claim 6 in which the conductive substrate comprises etches that are filled with a resistive composition.

8. The device of claim 6 in which the substrate comprises half etches.

9. The device of claim 6 in which the layer extends at least to the upper die surface

Sub A3

10. A device comprising:

a lead frame;

a die having a lower die surface that overlies, is connected by contacts to, and is spaced by a gap from a first region of the lead frame;

a peripheral component also connected to the lead frame at a location other than in the first region; and

a polymer composition

that extends in a direction normal to the lead frame at least above the lower die surface and extends along a surface of the lead frame from the die to the peripheral component.

11. The device of claim 10 further comprising an insulative layer that at least partially fills gap and covers the first region.

12. The device of claim 10 in which the layer extends to a perimeter of the lead frame.

SUB D4

13. A method comprising:

a) forming a gap between a die and a substrate to which the die is connected;

b) causing a compound to enter the gap and to form a layer on an upper surface of the substrate; and

c) setting the compound to generate a continuous, rigid network that extends within the gap and forms a layer surrounding the die perimeter.

14. The method of claim 13 in which the layer extends at least to the surface of the die that opposes the substrate.

15. The method of claim 13 in which the layer extends along the plane of the substrate a distance that is at least

the distance from the die lower surface to the die upper surface.

16. The method of claim 13 in which the layer extends to the perimeter of the substrate.

17. The method of claim 13 in which the applying comprises (1) surrounding the die and the upper substrate surface using a mold to form a mold cavity; and (2) injecting the compound into the mold cavity.

18. The method of claim 17 in which a surface of the mold includes a film.

19. The method of claim 17 in which the compound is injected under a pressure of at least 1 MPa.

20. The method of claim 13 in which the compound comprises an epoxy.

21. The method of claim 13 further comprising etching the substrate to generate leads, each lead forming a conductive path from one of the contacts to a lead terminus.

22. The method of claim 21 further comprising applying an insulative composition that fills etched regions of the substrate.

23. A method comprising:

a) disposing a die having terminals on an upper substrate surface of a conductive substrate such that a cavity is formed between the die and the substrate and contacts are formed between the terminals and the conductive substrate; and

b) etching the conductive substrate to generate conductive leads.

24. The method of claim 23 in which the disposing comprises (1) applying a compound to the surface such that the compound forms a layer on the upper substrate surface, and (2) setting the compound to form a continuous network.

25. The method of claim 23 in which the substrate comprises half-etches that are backed by a substrate underlayer, and the etching comprises removing the substrate underlayer.

26. The method of claim 23 in which the disposing comprises disposing multiple dies, and the method further comprises dicing the etched conductive substrate.

27. The method of claim 24 in which the compound fills the cavity.

28. The method of claim 24 further comprising, prior to applying the compound to the surface, filling the cavity using an underfill composition.

29. The method of claim 23 in which the upper substrate surface is covered by an insulative layer that has excised regions adapted for receiving the terminals.

30. The method of claim 29 in which a gap is formed between the insulative layer the die, and the method further includes, prior to b), applying a compound to the surface of the insulative layer that opposes the die; filling the gap with the compound; and setting the compound to form a continuous polymer network.